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(54) **COLOR SPACE CONVERSION METHOD**

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(57) Abstract:

PURPOSE: To perform RGB-YIQ conversion by a microprocessor of 32 bits at high speed and to reduce the capacity of a lookup table.

CONSTITUTION: A Y-value can be obtained by adding numbers 1, 2, and 3 of 32 bits for each of R, G, and B components by table lookup, and masking the low-order eight bits of an added value 4. An I-value can be obtained by masking the low-order 10 bits of a number 5 of 32 bits in which the added value 4 is barrel-shifted by 10 bits to the right. A Q-value can be obtained by masking the low-order 10 bits of 32 bits in which the number 5 of 32 bits is shifted by 10 bits to the right by barrel shift.